Subpart D—Oceanographic Research

§ 173.070 Specific applicability.

Each oceanographic vessel, inspected under Subchapter U of this chapter, except a barge that is less than 300 gross tons, must comply with this subpart.

§ 173.075 Subdivision requirements.

(a) Each oceanographic vessel must comply with the subdivision requirements in §§ 171.070, 171.072, and 171.073 of this subchapter as if it were a passenger vessel carrying 400 or less passengers.

(b) Each vessel must have a collision bulkhead.

§ 173.080 Damage stability requirements.

Each oceanographic vessel must comply with § 171.080 of this subchapter as a category Z vessel.

§ 173.085 General subdivision requirements.

Each oceanographic vessel must comply with the following:

(a) Section 171.085(c)(1), (d) and (g) of this subchapter.

(b) Section 171.105 (a) through (g) of this subchapter except that a reduction or elimination of the required inner bottom is allowed if—

(1) The inner bottom would interfere with the mission of the vessel; and

(2) As a result of other design features, the ability of the vessel to withstand side and bottom damage is not reduced.

(c) Section 171.106 of this subchapter.

(d) Section 171.108 of this subchapter.

(e) Section 171.109 of this subchapter.

(f) Section 171.111 of this subchapter.

(g) Section 171.113 of this subchapter.

(h) The collision bulkhead must not be penetrated by more than one pipe that carries liquid to or from the forepeak tank. This pipe must have a screwdown valve that is—

(1) Operative from above the bulkhead deck; and

(2) Attached to the bulkhead inside the forepeak tank.

(i) Section 171.116 (b), (c), and (e) of this subchapter.

(j) Section 171.117(c) of this subchapter.

(k) Each port light in a space located below the freeboard deck, as defined in § 42.13–15(i) of this chapter, or in a space within an enclosed superstructure must be fitted with a hinged inside dead cover.

(l) Section 171.118 (b) and (c) of this subchapter.

(m) Section 171.122 (a) through (d) and (f) of this subchapter.

(n) Section 171.135 of this subchapter.

(o) A ventilation duct or forced draft duct may not penetrate a main transverse watertight bulkhead unless—

(1) The penetration is watertight;

(2) The penetration is located as near the vessel's centerline as possible; and

(3) The bottom of the duct is not more than—

(i) 18 inches (45.7 cm) below the bulkhead deck; and

(ii) 4 feet (121.9 cm) above the final waterline after damage determined in § 173.080.

Subpart E—Towing

§ 173.090 General.

This subpart applies to each vessel that is equipped for towing.

§ 173.095 Towline pull criterion.

(a) In each towing condition, each vessel must be shown by design calculations to meet the requirements of either paragraph (b) or (c) of this section.

(b) The vessel's metacentric height (GM) must be equal to or greater than the following:

$$GM = \frac{(N)(P \times D)^{2/3}(s)(h)}{K\Delta(f / B)}$$

where—

N=number of propellers.

P=shaft power per shaft in horsepower (kilowatts).

D=propeller diameter in feet (meters).

s=that fraction of the propeller circle cylinder which would be intercepted by the rudder if turned to 45 degrees from the vessel's centerline.

h=vertical distance from propeller shaft centerline at rudder to towing bitts in feet (meters).

Δ=displacement in long tons (metric tons).

f=minimum freeboard along the length of the vessel in feet (meters).

B=molded beam in feet (meters).